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# CELERY CULTIVAR TRIALS -- 1973

MUCK CROPS BRANCH

CELERYVILLE, OHIO

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OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

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E. K. Alban[1] and Edward Postema[2]

Twenty cultivars or promising breeding lines were compared in replicated trials at the Muck Crops Branch of the Ohio Agricultural Research and Development Center near Celeryville. Tabular data are included in Table 1.

## Cultural Information

Seed was sown April 2, 1973; seedlings were transplanted to greenhouse benches April 26-27; and celery was mechanically transplanted into the field on May 22, 1973.

Nine hundred pounds of an 0-25-25 fertilizer were applied and disced in prior to planting. Side dressing of ammonium nitrate (100 lb./A.) was made twice during the 2 to 4-week period after planting.

Replicated plots consisted of paired rows spaced 34 inches, with 40 inches between the paired rows for equipment clearance. Plants were spaced 6.5 inches in the row, with 41 plants per 23-foot plot, and replicated six times for each cultivar.

Dyrene was applied at 7 to 10-day intervals for disease control. Malathion for insect control was added to the Dyrene spray at approximately 14 to 20-day intervals. Two late applications of Dipel were necessary for control of cabbage worms.

Rainfall during the season included: May -- 3.83 inches; June -- 5.66 inches; July -- 4.15 inches; and August -- 2.82 inches. Water was never a limiting factor, since overhead irrigation was available and used as needed.

Harvesting and recording of pertinent data were accomplished during the period August 20-23, 1973. Total yield, stalk size, trim loss, length and number of petioles are included in Table 1.

## Sources of Seed

The following include abbreviations used in Table 1 as well as the seed companies involved and their addresses. We would like to acknowledge that each company donated the seed for these studies.

A-1 Abbott & Cobb, 4744-46 Frankford Ave., Philadelphia, Pa. 19124

F-1 Ferry Morse Seed Co., Box 100, Mountainview, Calif. 94040

H-1 Joseph Harris Seed Co., Inc., Moreton Farm, Rochester, N.Y. 14624

K-3 Keystone Seed Co., Box 1438, Hollister, Calif. 95023

S-6 Seiger's, 7245 Imlay City Road, Imlay City, Mich. 48444

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## RESULTS

Total survival of plants to maturity was a major factor in the 1973 studies. Certain replications had as low as 60% plants to full maturity, while other replications were well over 90%. Development of celery plants as related to petiole length and number, total weight and size, and trim weight are all related to plant stand.

The data indicate that several of the new strains developed by Ferry Morse Seed Co. should be further evaluated.

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TABLE 1.--Celery Varieties, 1973.

| Rank | | Variety and Source | Av. Wt. per Large Stalk Lb. | Yield per Plot | | | Petiole Count 4" Above Butt No. | Petiole Length Butt--1 Node In. | Petiole Length Overall In. | Trim Loss % |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Large Stalks Lb. | Small Stalks Lb. | Marketables Lb. | | | | |
| 1 | 16 | Celery 3099 F-1 | 2.29 | 84.7 | 0 | 84.7 | 10.8 | 8.3 | 24.7 | 27.7 |
| 2 | 2 | Florida 2-13 F-1 | 2.09 | 75.1 | 0.5 | 75.6 | 9.0 | 8.6 | 24.4 | 30.8 |
| 3 | 12 | Celery 3037 F-1 | 2.04 | 74.7 | 0.2 | 74.9 | 9.2 | 8.6 | 24.4 | 32.4 |
| 4 | 1 | Florida 2-13 H-1 | 2.03 | 66.5 | 1.0 | 67.5 | 10.9 | 8.0 | 23.2 | 29.6 |
| 5 | 5 | Florida 2-14 K-3 | 2.01 | 73.7 | 0.9 | 74.6 | 10.5 | 8.2 | 23.1 | 33.4 |
| 6 | 14 | Florida 683 A-1 | 1.99 | 69.5 | 0.5 | 70.0 | 9.5 | 9.7 | 24.4 | 32.5 |
| 7 | 17 | Celery 3036 F-1 | 1.97 | 75.0 | 0.3 | 75.3 | 11.1 | 8.8 | 24.7 | 32.3 |
| 8 | 6 | 52-70 R K-3 | 1.96 | 70.4 | 0.5 | 70.9 | 10.2 | 9.1 | 22.8 | 31.8 |
| 9 | 11 | Celery 15-C9 F-1 | 1.95 | 67.7 | 0.2 | 67.9 | 10.5 | 8.8 | 23.1 | 36.2 |
| 10 | 9 | Celery E 0207 F-1 | 1.94 | 68.6 | 0.4 | 69.0 | 11.6 | 9.3 | 25.0 | 37.0 |
| 11 | 18 | Florimart F-1 | 1.93 | 67.3 | 0.4 | 67.7 | 9.2 | 8.4 | 23.0 | 29.2 |
| 12 | 4 | Earlibelle K-3 | 1.93 | 65.0 | 0.4 | 65.4 | 9.8 | 8.6 | 23.8 | 34.7 |
| 13 | 20 | Utah Pascal S-6 | 1.91 | 72.8 | 0.1 | 72.9 | 9.7 | 10.1 | 25.8 | 29.5 |
| 14 | 10 | Celery 8190 F-1 | 1.84 | 62.9 | 0.2 | 63.1 | 11.0 | 8.6 | 23.7 | 36.3 |
| 15 | 15 | Tender Crisps F-1 | 1.82 | 59.8 | 0.2 | 60.0 | 9.6 | 8.4 | 22.7 | 28.5 |
| 16 | 3 | Florida 683 F-1 | 1.82 | 58.7 | 0.4 | 59.1 | 9.3 | 7.8 | 21.9 | 33.6 |
| 17 | 7 | Beacon K-3 | 1.76 | 54.6 | 0.9 | 55.5 | 10.4 | 10.2 | 25.2 | 37.4 |
| 18 | 8 | Celery 8191 F-1 | 1.76 | 54.2 | 1.0 | 55.2 | 9.0 | 9.6 | 24.3 | 33.8 |
| 19 | 19 | Tall Greenlight H-1 | 1.67 | 57.8 | 0.6 | 58.4 | 9.7 | 8.5 | 22.8 | 35.3 |
| 20 | 13 | Improved 52-70 A-1 | 1.53 | 48.6 | 0 | 48.6 | 8.9 | 7.1 | 16.1 | 38.3 |

No significant differences at 5% level.

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